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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 18

Application Number: 09/057,502

Filing Date: April 09, 1998

Appellant(s): SANO ET AL.

William C. Rowland

For Appellant

**EXAMINER'S ANSWER**

**(1) Real Party in Interest**

This is in response to the appeal brief filed 2/27/2003.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the brief fails to provide reasons as to why the claims do not stand or fall together. Furthermore, Appellant argues the same issue, i.e. whether the Tence can be combined with Kneezel, for all of the claim groupings.

**(8) *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

5,745,131

KNEEZEL et al.

4-1998

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 5-11, 13-18 and 20-33 are rejected under 35 U.S.C. 103 as being unpatentable over Tence et al. in view of Kneezel et al. This rejection is set forth in prior Office Action, Paper No. 12.

**(11) *Response to Argument***

With regards to Group I., claims 1, 2 and 3, Appellant argues the references piecemeal. Appellant argues each reference individually without looking at the references as whole. For example, Appellant argues that Tence fails to teach or disclose a controller for printing smoothing dots with the centers closer together than the image forming dots. The Examiner readily admits that Tence does not disclose this feature. However, Kneezel teaches printing an image with smoothing dots that are both smaller than the printing dots and spaced with the centers closer together than the image forming dots. Using the teaching of Kneezel, i.e. printing with smoothing dots, would suggest to one of ordinary skill in the art that this could be accomplished with the printer of Tence. This could be accomplished because Tence discloses (col. 13, lines 29-35) that both the drop size and dot-to-dot spacing can be controlled. Thus, by controlling the scanning speed of the printer and the drive signal applied to the printing element, Tence is able to print an image with both smoothing dots and image forming dots. As previously stated, Kneezel is applied only for the teaching of the desirability to print with both image forming dots and smoothing dots and is not provided as a teaching as to how this process may be performed with another type of ejector. Therefore, the rejections of claims 1-3 is deemed to be

proper. Applicant's argument that the proposed modification would change the principle operation of the modified art (Tence) is not deemed to be persuasive because it is erroneous. As previously stated, Kneezel is provided solely to teach a desired image output. Tence has the teachings necessary to print an image with this output. Thus, Tence is not destroyed because the only modification to Tence is the desired image output. Furthermore, Appellant's allegation that the rejection provides no teachings as to how Tence is modified is not correct. The Office Action states that Tence teaches that a single nozzle may print dots of various sizes and that the dot-to-dot spacing can be controlled. Thus, Tence is not structurally modified. The only modification to Tence is in the desired image output.

With regards to Group II., claims 5-7, 13-15, 20-22, 27-29 and 33, Appellant fails to provide any further arguments other than the general statement <sup>that</sup> Tence fails to provide smoothing dots and Kneezel fails to teach how to modify Tence. However, Appellant admits that Tence does teach both how to change the dot size and the spacing of the dots. As previously stated, Kneezel is provided only to teach the desirability of the output. Tence already teaches that both drop size and drop spacing (i.e. resolution) can be controlled.

With regards to Group III., claims 8, 16 and 23, it is noted the Appellant never before argued the limitations of these claims individually and the rejection was previously deemed to be proper due to the failure to argue the limitations of these claims. No new arguments are to be raised at the time of Appeal. Therefore, these arguments are considered improper.

With regards to Group IV., claims 9-11, these arguments are similar to the arguments for Group I., primarily the references are attacked alone and not the combination as a whole. As previously stated, Tence teaches how to change a dot size and a dot spacing (resolution).

Kneezel teaches the desirability of smoothing dots. Therefore, Tence could clearly be operated to print smoothing dots that are smaller and printed closer together.

With regards to Group V., claims 17 and 18, Appellant argues a method of printing including controlling the timing of printing of the dot. Tence controls the drop timing of both drops (see Figures 15A & 15B). As shown in the figures, the timing of the larger drop is different than the timing of the smaller drop. Thus, Tence does disclose changing the timing as claimed. Appellant's argument that Tence in view of Kneezel would use multiple nozzles is not persuasive because it is not accurate. As previously stated, Kneezel is not used to structurally modify Tence, Kneezel is used only to teach the desirability of smoothing dots. Tence teaches printing dots of different sizes with different timings. The Examiner does not understand why combining the references would result in printing with two nozzles. Using this logic would also result in printing with a printer using both thermal actuators and piezoelectric actuators. Clearly, this is not the case nor is argued.

With regards to Group VI., claims 24-26 and 30, Appellant sets forth the same arguments as provided for Group I. These arguments are not persuasive for the same reasons provided above.

With regards to Group VII. claims 31 and 32, Appellant sets forth the same arguments provided for both Group I. and Group VI. These arguments are not persuasive for the reasons cited above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Conferees

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